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ABSTRACT

Consistent with Anderson's weighted averaging model, it was predicted that 19 subjects who were defined by a lack of differentiation among their personal constructs would experience considerable inconsistency in the factorial combination of five personality trait dimensions selected from each subject's REP test. Such inconsistency was expected to evoke a configural component of judgment in the form of stimulus discounting. In contrast, 19 subjects who were defined by high differentiation among their personal constructs were not expected to experience inconsistency in the factorial combinations of five personality trait dimensions selected from each subject's REP test. A strict linear model was expected to account for the judgments of these subjects. A 2x2x2x2x2 factorial analysis of variance was performed on the judgments of each subject and the number of significant main effects (linearity of judgment) and interaction effects (configurality of judgment) between the two experimental groups were compared. Although most of the judgmental variance of both experimental groups was accounted for by a strong linear process, a psychologically meaningful configural process was noted in the judgments of both experimental groups. The configurality was consistent with a weighted averaging model, but was qualitiatively different in form in the two groups of subjects. (Author)

Cognitive Differentiation and Impression Formation: An Integration Theory Approach

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Running head: Cognitive Differentiation

Cognitive Differentiation and Impression Formation: An Integration Theory Approach

Kelly (1955) has maintained that the organization of an individual's personal constructs provides paths of inference and the potential for resolving contradictory information about one's social world. The functional importance of an organized construct system rests on the assumption that without such organization, confusion and interpersonal inefficiency would inevitably ensue. However, Kelly is unclear as to the process by which this organizational system is applied to specific events. Is it that certain construct relationships serve to organize the perception of events in the most efficient manner? Or is the formation of impressions and judgments more efficient when based on a construct system characterized by a high degree of independence among the constructs? The latter position implies that construct organization is defined as a structural outcome of a specific event rather than as a structure imposed by a construct system. This suggests that it is the flexibility of the construct system and not the implicit relationship among constructs which facilitates perceptual clarity and efficient performance.

In an attempt to identify a structural component of Kelly's (1955) theory, Bieri (1955) introduced the term cognitive complexity to reflect the amount of differentiation in an individual's personal construct system. A person who employs numerous, well-differentiated constructs to construe and represent his social world is cognitively complex, whereas a person who uses fewer constructs with little discriminability among them, possesses a simple cognitive structure (Bieri, 1955, 1961; Atkins, Briar, Leaman, Miller & Tripodi, 1966; Tripodi & Bieri, 1963). Bieri's (1955, Tripodi & Bieri, 1963) modification of

Kelly's (1955) Role Construct Repertory (REP) Test was designed to provide an objective estimate of an individual's level of cognitive complexity. However, Crockett (1965) has argued that differentiation represents only one aspect of cognitive complexity. A complete explanation of complexity requires an understanding of the hierarchical integration of differentiated constructs. Similarly, Streufert and Fromkin (1972) have indicated that although various approaches to cognitive complexity accept differentiation as a precondition for integration, integration is not consistently invoked as an important element in cognitive complexity research.[1]

The failure to emphasize the integration of information is understandable in light of the fact that the REP test was not designed to assess hierarchical construct organization. Nevertheless, it has been shown that certain REP test procedures can provide information regarding an aspect of organization in the form of construct clustering (Landfield, 1971). Assuming that a cluster of highly related constructs represents a kind of fixed structural unit, the question arises as to the effect such structures have on the processing of information. If a large number of interrelated constructs contribute positively to judgment, persons exhibiting low cognitive differentiation should be the most accurate processors of information. On the other hand, if a large number of interrelated constructs preclude the recombination of constructs, individuals possessing high cognitive differentiation should render more accurate judgments. In this regard, empirical evidence has indicated strongly that as the systematic relationship among constructs increases, judgmental accuracy declines (cf. Bieri et al., 1966).

Because the personal constructs maintained by undifferentiated individuals

are highly interrelated, it may be understood that many of the trait combinations found on personality impression formation tasks would be inconsistent with the personal construct system of undifferentiated people. For example, if a person believes that all happy people are friendly people (and, conversely, all sad people are unfriendly people), the presentation of the traits happy and unfriendly or sad and friendly on a personality impression formation task would be inconsistent with the combination rules which the person applies to the happy-sad and friendly-unfriendly dimensions.

The manner in which people resolve inconsistencies, particularly on personality impression formation tasks, may be understood in terms of integration theory and the weighted averaging model developed by Norman H. Anderson (1974a, 1974b, 1974c):

> In the information integration model, each stimulus is considered to have a scale value, s, and a weight, w. The s parameter allows the stimulus to vary in value along the dimension of judgment. The w parameter allows for differential relevance or importance. The averaging model in general form is $R = \Sigma w_i s_i / \Sigma w_i$, where w_i and s_i are the weight and value of stimulus i. The sum is over all the relevant simuli . . .
>
> When all the [levels of one stimulus dimension] have the same weight, and all of the [levels within each of the other stimulus dimensions] have the same weight, then the formula becomes simplified and specifies the response as an additive or linear function of the stimulus values . . . .The linear law can thus be viewed as a special case of the averaging hypothesis that holds

when stimuli within each factor have the same weight or importance.

> Linearity leads to the parallelism prediction which has a simple, powerful test in terms of the interaction in a factorial analysis of variance . . . . Linearity only holds when the condition of equal weighting applies. If [the levels of the stimulus dimensions] have different weights, then the denominator is variable and the equation is non-linear or configural. (Kaplan & Anderson, 1973, pp. 305-306)

According to Anderson's model, inconsistency among stimuli normally is resolved by stimulus discounting, thereby reducing the weight or natural importance of one or more of the inconsistent stimuli. In terms of present considerations, the weight of a particular personality trait will depend necessarily on the traits with which it is combined. As the undifferentiated individual is likely to experience considerable inconsistency among personality traits presented for judgment, the subject should depart from a strict linear model by altering the weight of one or more stimuli, thereby employing combination rules consistent with a configural model. As inconsistency among informational stimuli is an unlikely event for highly differentiated persons, the relative weight of each stimulus should remain the same regardless of the stimulus configuration. That is, judgment should be a strict linear function of the weights and scale values of the extant stimuli.

This study was concerned with the respective integration processes employed by a group of subjects who varied in their level of cognitive differentiation. A complete factorial arrangement of a set of five bipolar

personality trait dimensions taken directly from each subject's REP test served as the judgmental stimuli. Each subject was asked to indicate the degree of comfort she would feel if it were necessary to spend some time with a person possessing the attributes indicated in each configuration of personality traits.

An analysis of variance (ANOVA) model, employed by a number of investigators to detect the presence of linearity and configurality in the judgment process (e.g., Anderson, 1969; Hoffman, Slovic, & Rorer, 1968; Millimet & Greenberg, 1973; Rorer, Hoffman, Dickman, & Slovic, 1967; Slovic, 1969) was used to analyze the judgments of the two experimental groups. In terms of the ANOVA model, a significant main effect for a stimulus dimension indicates that judgment is a function of the stimulus dimension alone, thereby signaling the presence of a linear integration process. A significant interaction effect indicates that judgment is made on the basis of two or more stimulus dimensions in combination. That is, judgmental variation for one stimulus dimension is a function of at least one other stimulus dimension. It may be understood that stimulus interaction is a sign of a configural integration process (Anderson, 1972).

Because individuals who are described as intelligent, kind, interesting, capable, and forgiving are more likely to be appreciated than individuals who are described as unintelligent, cruel, boring, inefficient, and resentful, it was expected that the number of significant main effects would be considerable in the analyses of the judgments of both experimental groups. However, as varying amounts of trait inconsistency were expected to be present in the judgmental task of undifferentiated subjects only, a weighted averaging model

leads to the prediction that these subjects would resort to stimulus discounting and exhibit a greater number of statistically significant interaction effects than differentiated subjects in the analyses of their judgments.

Method

Subjects. Students enrolled in the second semester of an introductory psychology course at the University of Nebraska at Omaha were administered a modification of Kelly's (1955) REP test, similar to the one developed by Tripodi and Bieri (1963). The respondents were asked to rate individuals who best corresponded to 10 provided role categories (e.g., mother, person you dislike) for each of 15 personality trait dimensions selected by the respondent from a list of 60 trait dimensions which were provided (e.g., shy-outgoing, unintelligent-intelligent). A seven-point scale was used in the rating procedure.

Scoring was based on a procedure developed by Landfield (1971) in which ratings for any two trait dimensions are compared for similarity of usage across role categories. This procedure was performed for each of the 105 pairings of the 15 trait dimensions and summed to derive a total differentiation score. A test-retest correlation coefficient of .89 (N = 38) was obtained following a five week interval.

Because of the small number of males enrolled in the participating classes (N = 46), only female subjects were considered (N = 150). From this population, 20 undifferentiated subjects with scores at least one SD above the mean, and 20 differentiated subjects with scores at least one SD below the mean, were selected for further investigation. Because one of the undifferentiated subjects declined to participate, the least differentiated of

the differentiated subjects was dropped in order to maintain equal group size (N = 19).

Procedure. Upon entering the laboratory, each subject was given a 64 page booklet and a set of instructions. Each page of the booklet contained the same five personality trait dimensions which were taken directly from the subject's REP test. For the differentiated subjects, the five most differentiated trait dimensions were selected. For the undifferentiated subjects, the five trait dimensions which evidenced the least differentiation were selected.

The five trait dimensions were presented 64 times in the same top to bottom position on each page with the left-right placement of the poles of each dimension determined by a fully-crossed methodology. Each of the initial 32 presentations represented a different configuration of the poles of the five trait dimensions as determined by a 2 X 2 X 2 X 2 X 2 factorial design. The pole of each trait dimension that was to be considered in each configuration was circled. The pole that was not to be considered was left uncircled. The order of presentation of the 32 configurations was determined randomly for each subject. The remaining 32 pages of the booklet consisted of the same 32 configurations in a different random order of presentation. The duplication of judgments was required for deriving an estimate of intra-judge test-retest reliability and the error term for the analysis of variance.

For each configuration, the subjects were given the following instructions: Please assume that you are attending a social function and have just been introduced to a person whom you have never met. In the course of the conversation, it becomes clear to you that the person possesses the attributes

which are circled below. After you have carefully considered all the attributes this person possesses, please indicate on a ten point scale how comfortable you would feel in the presence of this person if it were necessary for the two of you to spend a considerable amount of time together.[2]

Ratings were made on a scale which ranged from 1 (extremely uncomfortable) to 10 (extremely comfortable). The task took from 15 to 30 minutes for each subject. Subjects were examined in groups of one to six and testing was completed over a three week period.

Results and Discussion

Mean test-retest reliabilities for undifferentiated (.82) and differentiated (.70) subjects were adequate and not significantly different ($Z = 0.83$, $p = .41$).

A separate 2 X 2 X 2 X 2 X 2 factorial analysis of variance was performed on the 64 ratings of each subject and resulted in F tests for five main effects (representing the five personality trait dimensions) and 26 interaction effects (representing the five personality trait dimensions in combination). The results of the 38 separate analyses were subjected to a 2 (groups: undifferentiated versus differentiated) x 2(effects: main versus interaction) repeated measures factorial analysis of variance performed on the proportion of significant main and interaction effects in the analyses of the subjects composing the two experimental groups. The main effect of effects was highly significant (F (1,36) = 815.99, p <.00001) and indicated that the proportion of significant main effects ($\bar{X}$ = .874) was significantly greater than the proportion of significant interaction effects ($\bar{X}$ = .102). This result demonstrates the strong linear component of judgment that was

expected for all subjects.

Although the group x effects interaction was not statistically significant ($F < 1$), an analysis was performed on the simple effects related to the major hypothesis of the study. This analysis showed that although the proportion of significant main effects noted for the undifferentiated ($\bar{X}$ = .936) and differentiated ($\bar{X}$ = .910) subjects did not differ (F (1,36) = 1.24, NS), the proportion of significant interaction effects produced by the undifferentiated subjects ($\bar{X}$ = .123) was significantly greater than the number produced by the differentiated subjects ($\bar{X}$ = .077; F (1,36) = 4.56, $p < .05$). The results of the simple effects analysis make it clear that the significant main effect of groups (F (1,36) = 5.08, p = .03) was due primarily to the greater proportion of significant interaction effects produced by the undifferentiated group, thereby supporting the major hypothesis of the study.

It should be recognized that a significant interaction effect may not reflect a psychologically meaningful integration process, but may be the product of a nonlinear response scale. Such nonlinearity is often the result of response preferences and anchor effects (Anderson, 1972). Although it is possible that such effects influenced the responding of the subjects in the present investigation, examination of the data showed that the majority of subjects composing the two experimental groups either never used the most extreme responses allowed them on the ten-point rating scale or used these responses only once--when the stimulus configuration consisted of all five positive traits or all five negative traits. Furthermore, the grand means of the 64 ratings were not significantly different (t(36) = 1.32, NS). This indicated that the average rating of comfortableness given to the trait

configurations was the same for both groups of subjects. That is, the tendency to assign favorable ratings did not differ for the two experimental groups.

Insert Figure 1 about here

Of course, the critical test of the response scale resided in examining the profiles of the significant interaction effects for psychological meaning. For the undifferentiated subjects, 30 of the 37 significant two-factor interactions were nearly identical in appearance to the one presented in Figure 1. That the profile diverges to the right indicates that the positive trait interested in others was discounted when paired with the negative trait cruel. As it is unlikely that a cruel person would be genuinely interested in others, at least not in a positive sense, the inconsistency between these traits seems apparent. Furthermore, the nature of this discounting process is consistent with previous research which has shown that the presence of at least one negative trait tends to produce a negative judgment, regardless of the variation in the remaining traits with which the negative trait is combined (e.g., Birnbaum, 1974).

Insert Figure 2 about here

On the other hand, consider one of the seven significant interactions which showed a convergence to the right (see Figure 2). This profile indicates that the negative trait boring was discounted when paired with the

positive trait friendly. Although the inconsistency in the conjunction of the traits friendly and boring is not readily apparent, the procedure used to select the personality trait dimensions from which these stimuli were taken argues for their implicit inconsistency. THIS PROCEDURE IS UNLIKE THAT OF most previous research which typically has presented logically inconsistent stimuli to randomly selected subjects (e.g., Anderson & Jacobson, 1965). Therefore, to search for psychological meaning in the profiles of the significant interaction effects of the undifferentiated subjects is likely to provide little reward. In fact, apart from the effect indicated in Figure 1, not one of the significant two-, three-, or four-factor interaction effects produced by the undifferentiated subjects was composed of stimuli which reflected a logically inconsistent relationship.

But a more important consideration arises. What are the determinants which led some undifferentiated subjects to discount the positive trait, and other undifferentiated subjects to discount the negative trait, of a dyad composed of one positive and one negative trait? The question becomes especially intriguing when it is recognized that the scale values of the respective positive and negative traits noted in Figures 1 and 2 are nearly identical to each other, within and between the two profiles. In Figure 2, for example, the scale values of interesting and friendly are 5.11 and 5.19 respectively, whereas the scale values of boring and unfriendly are .97 and .92, respectively (Anderson, 1968). In addition, it is important to understand that the scale values of the respective positive and negative traits in each figure are equidistant from the midpoint (3) of the response scale (Anderson, 1968). And yet the interaction effect noted in Figure 1

resulted from discounting a positive trait, whereas the interaction effect noted in Figure 2 resulted from discounting a negative trait. Therefore, as Anderson (1974b) has pointed out, "the frequent claim that negative information carries more weight than positive information . . . is not a simple question of fact. As most investigators have realized, it requires controlling for the scale values so that observed differences reflect only the weight parameter" (p. 87). Indeed, the equality of the scale values in the profiles appearing in Figures 1 and 2 suggests that greater weight is not always assigned to negative traits.

Insert Figure 3 about here

That the determinants of discounting are even more complex is dramatized in Figure 3. Here it can be seen that for the same undifferentiated subject, pairing idealistic with the positive traits of mature and concerned resulted in qualitatively different discounting processes, even though the magnitude of the discounting process was the same in both instances. Figure 3a shows that mature was discounted when paired with idealistic, whereas Figure 3b indicates that idealistic was discounted when paired with concerned, even though the trait dimensions of childish-mature and apathetic-concerned possess nearly the same positive and negative scale values (Anderson, 1968).

Insert Figure 4 about here

Unlike the interaction effects noted for the undifferentiated subjects, examination of the significant interaction effects produced by the differentiated subjects revealed the presence of considerable psychological meaning. However, in no instance did these effects appear to reflect inconsistencies among the traits under consideration. On the contrary, these interactions reflected considerable sophistication in the manner in which the traits were combined. For example, consider the significant two-factor interaction presented in Figure 4. As can be seen, when modest and conceited were paired with talkative, the talkative modest individual produced considerably greater comfort in the subject than the talkative conceited individual. However, when modest and conceited were paired with quiet no difference in comfort was experienced. It may be interpreted that a person who does not verbalize his conceit is behaviorally no different, and presumably no more offensive, than a person who does not give a verbal indication of his modesty.

Insert Figure 5 about here

Now consider the profile in Figure 5. Although the indecisive moral person was experienced with more comfort than the indecisive immoral person, the magnitude of the difference between the moral and immoral traits increased greatly when these traits were paired with decisive. The decisive moral person produced a considerable increase in comfort, whereas the decisive immoral person produced an increase in discomfort. It may be understood that the indecisive-decisive dimension is an important determinant of the likelihood of a person to carry out his moral or immoral inclinations.

Insert Figure 6 about here

Finally, consider the three-factor interaction shown in Figure 6. It can be seen that pairing prejudice-unbiased and childish-mature with mildmannered produced considerably less response variability than when these dimensions were paired with aggressive. Clearly, the presence of a strong activity dimension, such as mildmannered-aggressive, has a strong bearing on a person acting out his prejudiced or unbiased orientation, especially when the unbiased person is distinguished by his level of maturity.

The configural effects exhibited by the differentiated subjects are remarkably similar to a set of serendipitous findings obtained by Birnbaum (1974). Birnbaum showed that the activity component of one trait can multiply the evaluative component of another trait, resulting in a psychologically meaningful interaction effect. For example, Birnbaum (1974) showed that "self-confident and malicious is less likeable than shy and malicious although self-confident is more likeable than shy in combination with other traits. A self-confident, malicious person may be perceived as more likely to carry out malicious actions than a shy one" (p. 547).

Indeed, various aspects of the configural effects noted in the judgments of the differentiated subjects are consistent with certain properties of multiplying models. For example, an important requirement of multiplying models is that the stimuli under consideration be independent. It is clear that the manner in which the stimuli were selected satisfied this condition. Secondly, multiplying models are denoted by a fan of diverging straight lines, a characteristic which is consistent with nearly all of the configural effects of the differentiated

subjects. Unfortunately, the presence of only two stimuli in each trait dimension did not permit a direct test of bilinearity or any discrepancy from it. Finally, it may be argued that stimuli belonging to an activity trait dimension function like adverbs when paired with stimuli belonging to an evaluative trait dimension (Birnbaum, 1974). In this regard, adverb-adjective pairings have been shown to produce effects consistent with a multiplying model (Anderson, 1974a, 1974b, 1974c).

Although a multiplying model cannot be ruled out, it appears that a weighted averaging model provides a better explanation of these data. This is not to say that differential weighting occurred in response to inconsistent information, as was the case with the undifferentiated subjects. Clearly, the manner in which the stimuli were selected provides little reason to suspect that inconsistent information was presented to the differentiated subjects. Rather, the process of stimulus discounting appears to be in response to the differential likelihood of certain personality traits to be manifested in behavior. That is, if a person generally maintains a low level of activity, then many of the personality traits the person possesses are not likely to be expressed in behavior. Consequently, such traits may not be salient to the dimension of judgment. On the other hand, if a person generally maintains a high level of activity, then many of the personality traits the person possesses are more likely to be viewed as salient to the dimension of judgment. Such traits will assume greater importance in the integration process.

In an averaging model, the weight a stimulus assumes is directly related to the amount of importance attributed to it. Since the weights in an

averaging model are relative and must sum to one, a change in the weight of one stimulus will be associated necessarily with a change in the weight of the other stimuli in the context of judgment. As the weight of a stimulus decreases, the value of the stimulus will have a decreasing influence in the integration process. Conversely, as the weight of a stimulus increases, the value of the stimulus will have an increasing influence in the integration process. Consequently, even though stimuli may be considerably different in scale value (as would be expected for a bipolar trait dimension possessing a strong evaluative component, such as immoral-moral), judgments made to the separate stimuli should become more and more alike as the weight of each stimulus approaches zero (as would be expected when evaluative traits are paired with a trait connoting considerable inactivity, such as indecisive). On the other hand, a strong divergence in judgment would be expected when evaluative traits are paired with a trait connoting considerable activity (such as decisive).

It may be understood that the configural effects noted in the judgments of highly differentiated persons and the lack of differentiation maintained among the personality traits used by these persons are based on the same phenomenon, i.e., the presence and independence of a relatively high number of personality trait dimensions differing in connotative meaning. In fact, an examination of the 95 trait dimensions considered by the undifferentiated subjects in the present investigation showed that every dimension possessed a strong evaluative component, whereas out of the 95 trait dimensions considered by the differentiated subjects, 12 dimensions manifested a strong activity component and three exhibited a strong potency component--fully 16% of the total number. Furthermore, every one of the significant interaction effects noted in the analyses

of the judgments of the differentiated subjects included at least one activity or potency trait dimension. And with the possible exception of one or two of these effects, the configurality exhibited was consistent with the theory and examples discussed above.

It may be concluded that the configural effects noted in the judgments of both experimental groups were consistent with Anderson's weighted averaging model. For the undifferentiated subjects, the differential weighting was in response to the considerable inconsistency in the factorial combinations of highly related evaluative trait dimensions. For the differentiated subjects, the differential weighting resulted primarily from the factorial combinations of highly differentiated activity and evaluative trait dimensions.

But recall that it had been predicted that the judgments of the differentiated subjects would adhere to a strict linear model. This prediction was based on the notion that selecting a set of highly differentiated stimuli for judgment would preclude the occurrence of inconsistency in the trait combinations. Consequently, it was not expected that differential weighting and stimulus interaction would be associated with the judgments made by these subjects. However, it could not have been anticipated that the independence of the personality trait dimensions considered by the differentiated subjects would be based on the connotative distinction among evaluative, activity, and potency trait dimensions. Nor could the particular form of the discounting process be anticipated, i.e., the differential weighting of an evaluative trait dimension when paired with an activity trait dimension and, to a lesser extent, a potency trait dimension.

References

Anderson, N. H. Likeableness ratings of 555 personality-trait words. Journal of Personality and Social Psychology, 1968, 9, 272-279.

Anderson, N. H. Comment on "An analysis-of-variance model for the assessment of configural cue utilization in clinical judgment." Psychological Bulletin, 1969, 72, 63-65.

Anderson, N. H. Looking for configurality in clinical judgment. Psychological Bulletin, 1972, 78, 93-102.

Anderson, N. H. Algebraic models in perception. In E. C. Carterette & M. P. Friedman (Eds.), Handbook of Perception (Vol. 2). New York: Academic Press, 1974. (a)

Anderson, N. H. Cognitive algebra: Integration theory applied to social attribution. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 7). New York: Academic Press, 1974. (b)

Anderson, N. H. Information integration theory: a brief survey. In D. H. Krantz, R. C. Atkinson, R. D. Luce, & P. Suppes (Eds.), Measurement, psychophysics, and neural information processing (Vol. 2). San Francisco: W. H. Freeman and Company, 1974. (c)

Anderson, N. H., & Jacobson, A. Effect of stimulus inconsistency and discounting instructions in personality impression formation. Journal of Personality and Social Psychology, 1965, 2, 531-539.

Bieri, J. Cognitive complexity-simplicity and predictive behavior. Journal of Abnormal and Social Psychology, 1955, 51, 263-268.

Bieri, J. Complexity-simplicity as a personality variable in cognitive and preferential behavior. In D. W. Fiske & S. Maddi (Eds.), Functions of varied experience. Homewood, Ill.: Dorsey Press, 1961.

Bieri, J., Atkins, A. L., Briar, S., Leaman, R. L., Miller, H., & Tripodi, T. Clinical and social judgment: The discrimination of behavioral information. New York: Wiley & Sons, 1966.

Birnbaum, M. H. The nonadditivity of personality impressions. Journal of Experimental Psychology Monograph, 1974, 102, 543-561.

Hoffman, P. J., Slovic, P., & Rorer, L. G. An analysis-of-variance model for the assessment of configural cue utilization in clinical judgment. Psychological Bulletin, 1968, 69, 338-349.

Kaplan, M. F., & Anderson, N. H. Information integration theory and reinforcement theory as approaches to interpersonal attraction. Journal of Personality and Social Psychology, 1973, 28, 301-312.

Kelly, G. A. The psychology of personal constructs. Vols. 1-2. New York: Norton, 1955.

Landfield, A. W. Personal construct systems in psychotherapy. Chicago: Rand McNally, 1971.

Millimet, C. R., & Greenberg, R. P. Use of an analysis of variance technique for investigating the differential diagnosis of organic versus functional involvement of symptoms. Journal of Consulting and Clinical Psychology, 1973, 40, 188-195.

Rorer, L. G., Hoffman, P. J., Dickman, H. D., & Slovic, P. Configural judgments revealed. Proceedings of the 75th Annual Convention of the American Psychological Association, 1967, 2, 195-196.

Slovic, P. Analyzing the expert judge: A descriptive study of a stockbroker's decision processes. Journal of Applied Psychology, 1969, 53, 255-263.

Tripodi, T., & Bieri, J. Cognitive complexity as a function of own and provided constructs. Psychological Reports, 1963, 13, 26.

Footnotes

A version of this research was presented at the American Psychological Association Convention, Chicago, Illinois, 1975.

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[1] Because of the important theoretical distinction between differentiation and integration, the term cognitive differentiation, rather than cognitive complexity, will be used hereafter.

[2] The dependent variable of comfortableness was selected because of its logical correspondence to anxiety which Kelly (1955) views as an emotional state which is experienced when an individual recognizes that his construct system "does not apply to the events at hand. It is, therefore, a precondition for making revisions" (p. 498).

Figure Captions

Figure 1. Mean ratings of comfortableness given by an undifferentiated subject to a pair of implicitly correlated personality trait dimensions.

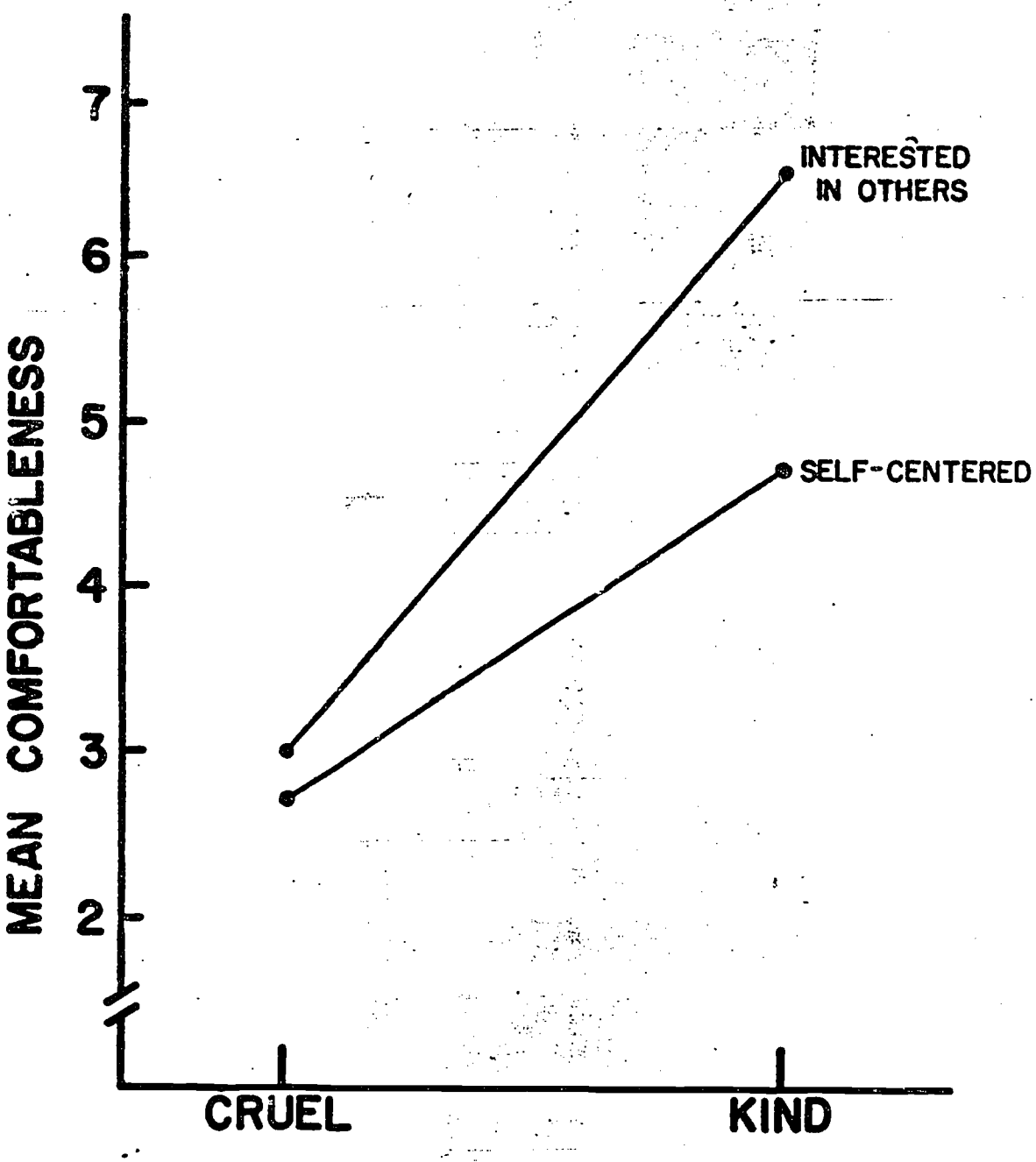
Figure 2. Mean ratings of comfortableness given by an undifferentiated subject to a pair of implicitly correlated personality trait dimensions.

Figure 3. Mean ratings of comfortableness given by an undifferentiated subject to two pairs of implicitly correlated personality trait dimensions.

Figure 4. Mean ratings of comfortableness given by a differentiated subject to a pair of implicitly uncorrelated personality trait dimensions.

Figure 5. Mean ratings of comfortableness given by a differentiated subject to a pair of implicitly uncorrelated personality trait dimensions.

Figure 6. Mean ratings of comfortableness given by a differentiated subject to three implicitly uncorrelated personality trait dimensions.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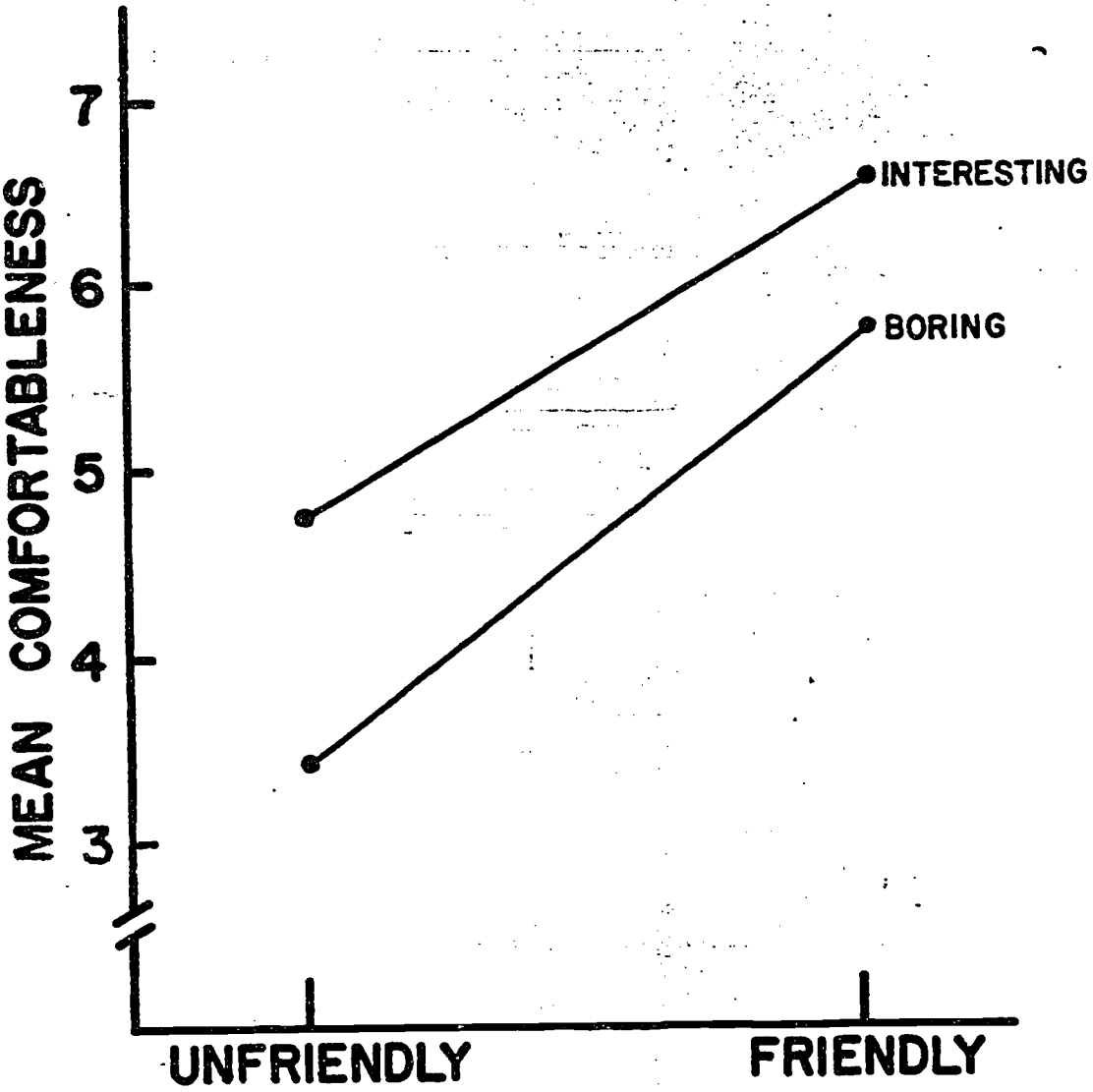
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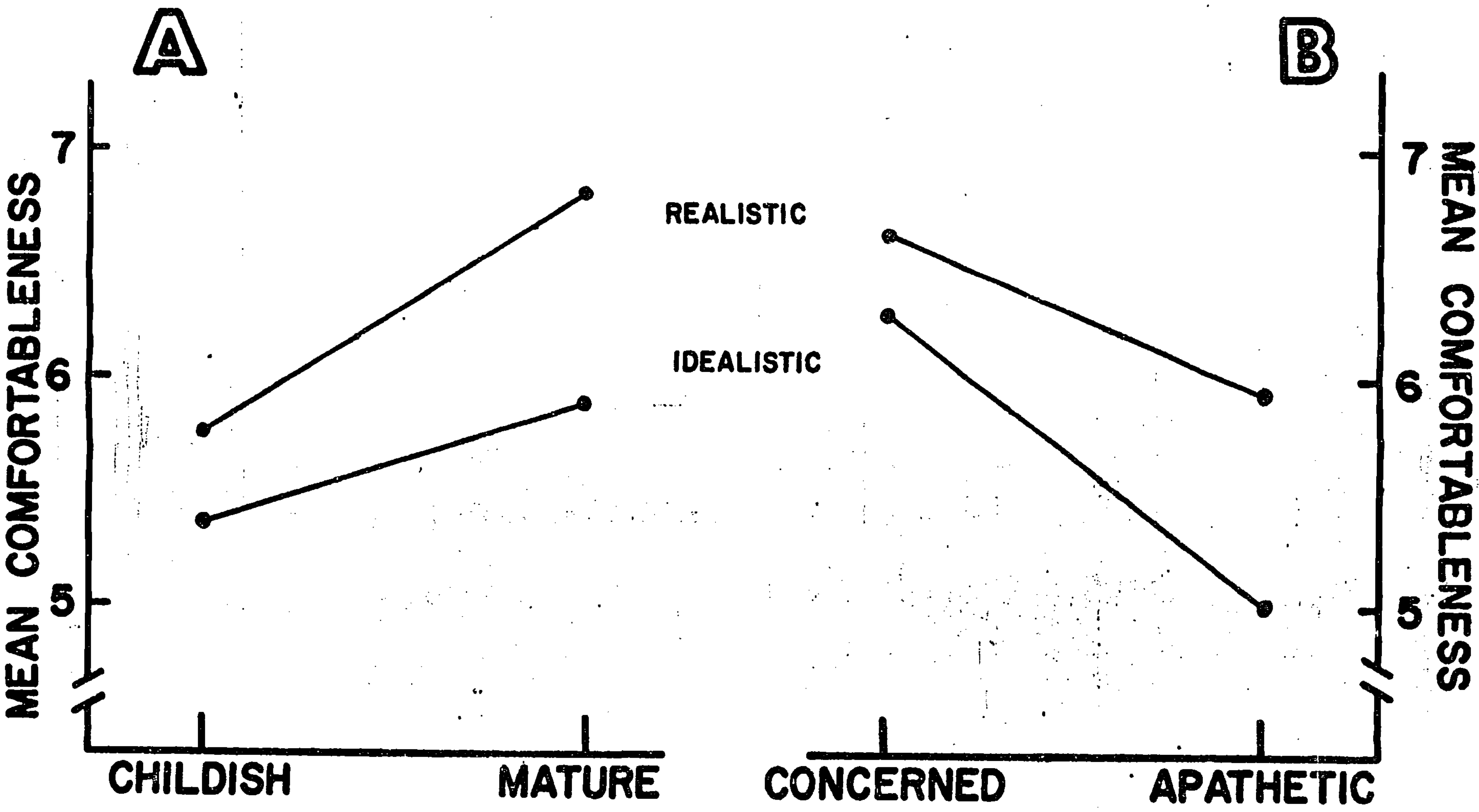
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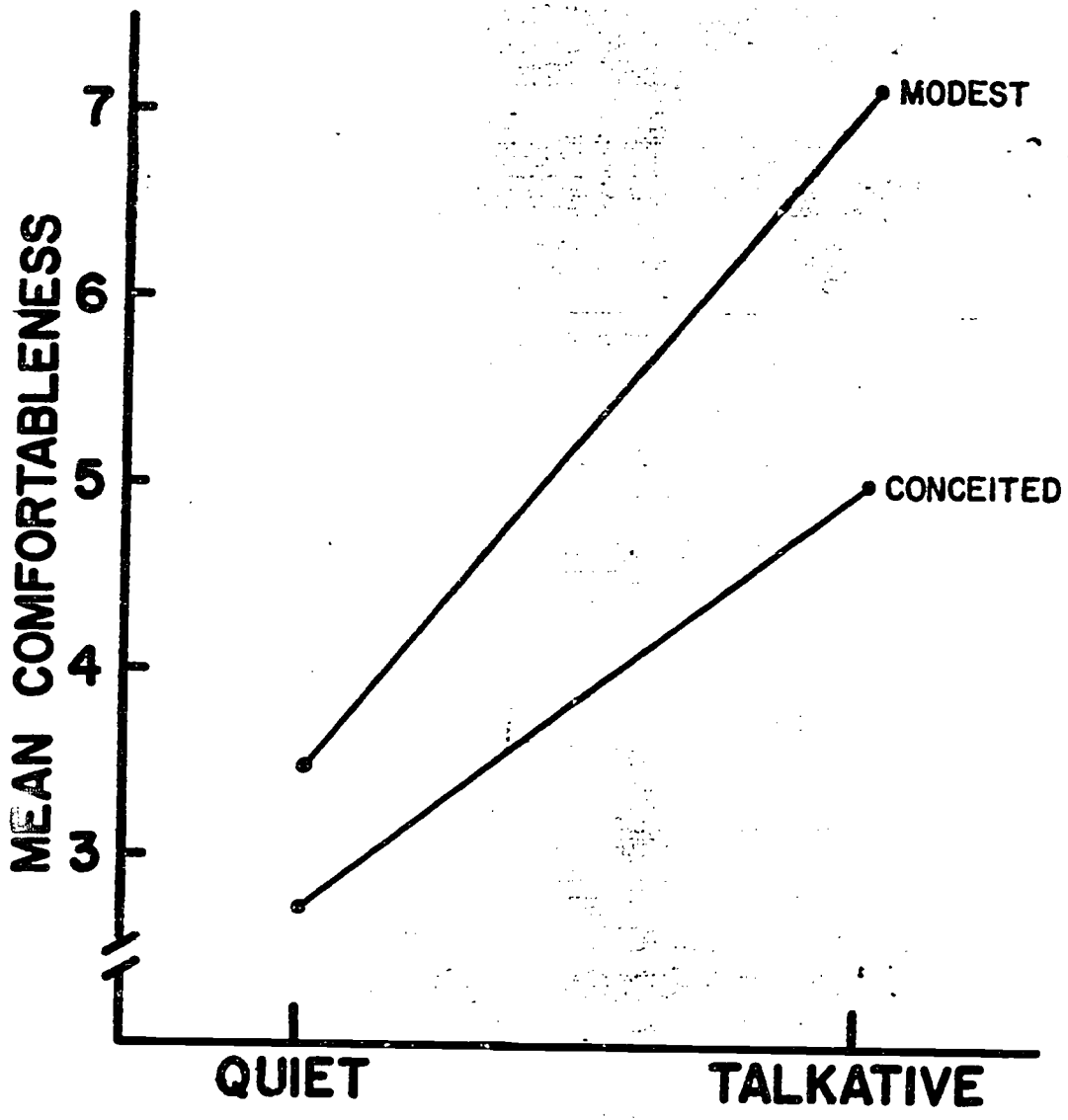
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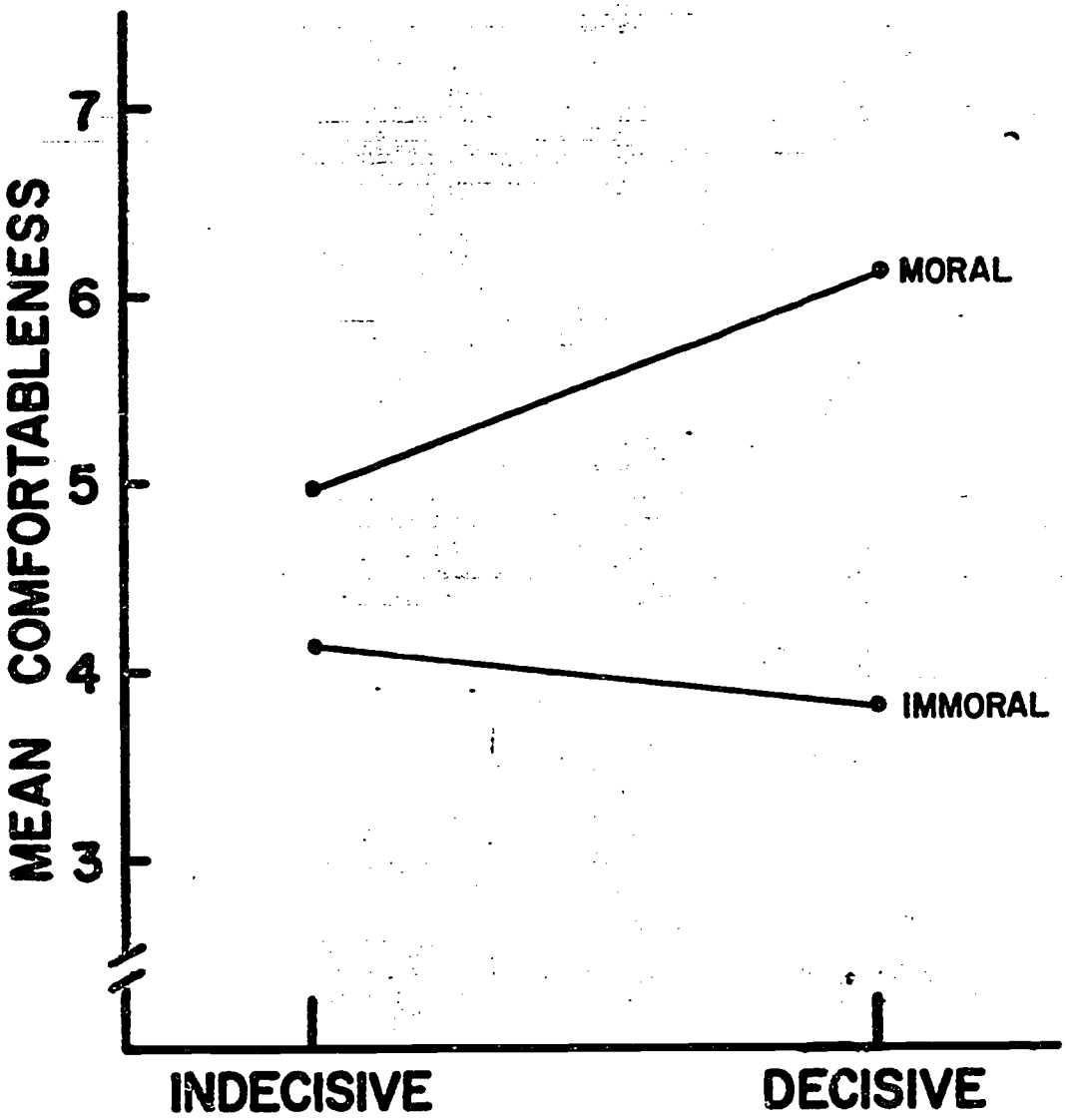
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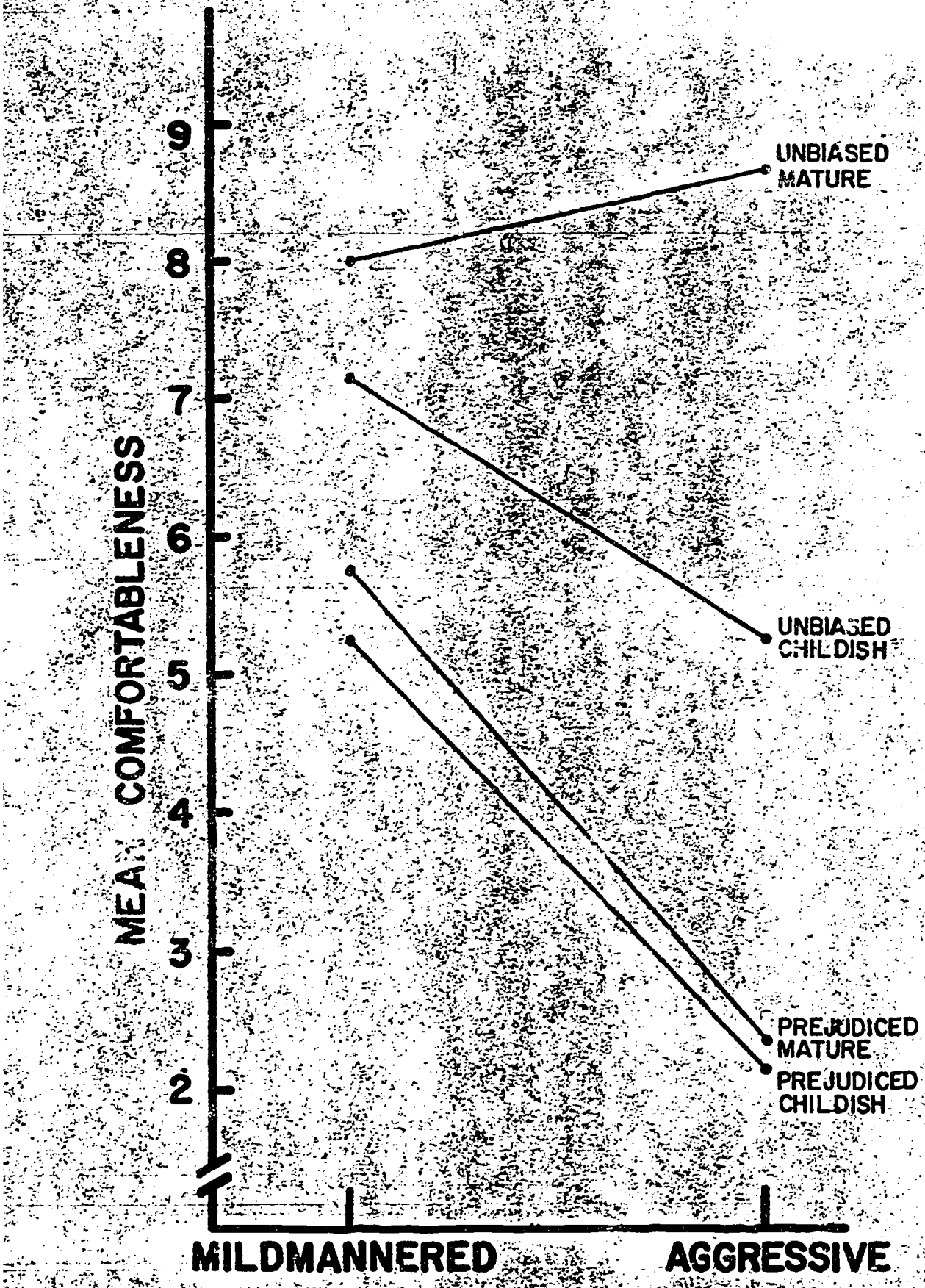
INDECISIVE
DECISIVE


MEAN COMFORTABLENESS
9
8
7
6
5
4
3
2
UNBIASED MATURE
UNBIASED CHILDISH
PREJUDICED MATURE
PREJUDICED CHILDISH
MILDMANNERED
AGGRESSIVE